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ABSTRACT OF THE DISCLOSURE

A joint structure and method for bonding together two components, such as when attaching an electrical circuit element to a conductor on a substrate. The joint structure comprises a mesh infiltrated by a solder material, in which the mesh is preferably formed of a material having a higher thermal conductivity than the solder material. The joint structure is able to offer improvements in thermal conductivity, electrical conductivity, reflow processing, and stress distribution between the structures it connects. Each of these attributes of the joint structure can be tailored to some degree by the choices of materials for the mesh and the solder material.